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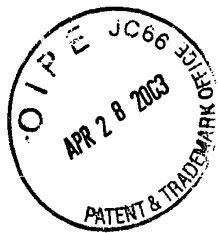
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2nd Edition  
Covers Netscape 4.0



# HTML

*The Definitive Guide*

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*Chuck Musciano & Bill Kennedy*  
O'Reilly & Associates, Inc.

**HTML: The Definitive Guide, Second Edition**  
by Chuck Musciano and Bill Kennedy

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*In this chapter:*

- *Horizontal Rules*
- *Inserting Images in Your Documents*
- *Document Colors and Background Images*
- *Background Audio*
- *Animated Text*
- *Other Multimedia Content*
- *Beyond HTML*

# 5

## *Rules, Images, and Multimedia*

While the body of most HTML documents is text, an appropriate seasoning of horizontal rules, images, and other multimedia elements make for a much more inviting and attractive document. These features of HTML are not simply gratuitous geegaws that make your documents look pretty, mind you. Multimedia elements bring HTML documents alive, providing a dimension of valuable information often unavailable in other media, such as print. In this chapter, we describe in detail how you can insert special multimedia elements into your documents, when their use is appropriate, and how to avoid overdoing it.

### *5.1 Horizontal Rules*

Horizontal rules give you a way to separate sections of your document visually. That way, you give readers a clean, consistent, visual indication that one portion of your document has ended and another portion is beginning. Horizontal rules effectively set off small sections of text, delimit document headers and footers, and provide extra visual punch to headings within your document.

#### *5.1.1 The <hr> Tag*

The <hr> tag tells the browser to insert a horizontal rule across the display window. Like the <br> tag, <hr> forces a simple line break, although unlike <br>, <hr> causes the paragraph alignment to revert to the default (left-justified). The browser places the rule immediately below the current line, and content flow resumes below the rule. [<br>, 4.7.1]

The rendering of a horizontal rule is at the discretion of the browser. Typically, it extends across the entire document. Graphical browsers may render the rule with a chiseled or embossed effect; character-based browsers most likely use dashes or underscores to create the rule.

*Isolate necessarily large graphics.*

Provide a special link to large images, perhaps one that includes a thumbnail of the graphic, thereby letting readers decide if and when they want to spend the time downloading the full image. And since the downloaded image isn't mixed with other document components like inline images, it's much easier for the reader to identify and save the image on their system's local storage for later study. (For details on non-inline image downloads, see 4.7.)

*Specify image dimensions.*

Finally, another way to improve performance is by including the image's rectangular height and width information in its tag. By supplying those dimensions, you eliminate the extra steps the extended browsers must take to download, examine, and calculate an image's space in the document. There is a downside to this approach, however, that we explore in 5.2.6.11.

### 5.2.5 JPEG or GIF?

You may choose to use only JPEG or GIF images in your HTML documents if your sources for images or your software toolset prefers one over the other format. Both are nearly universally supported by today's browsers, so there shouldn't be any user-viewing problems.

Nevertheless, we recommend that you acquire the facilities to create and convert to both formats, to take advantage of their unique capabilities. For instance, use GIF's transparency feature for icons and dingbats. Alternatively, use JPEG for large and colorful images for faster downloading.

### 5.2.6 The <img> Tag

The <img> tag lets you reference and insert a graphic image into the current text flow of your HTML document. There is no implied line or paragraph break before or after the <img> tag, so images can be truly "inline" with text and other content.

The format of the image itself is not defined by the HTML standard, although the popular graphical browsers support GIF and JPEG images. The HTML standard doesn't specify or restrict the size or dimensions of the image, either. Images may have any number of colors, but how those colors are rendered is highly browser-dependent.

Image presentation in general is very browser-specific. Images may be ignored by nongraphical browsers. Browsers operating in a constrained environment may modify the image size or complexity. And users, particularly those with slow network connections, may choose to defer image loading altogether. Accordingly,

**<img>****Function:**

Inserts an image into a document

**Attributes:**

ALIGN  
ALT  
BORDER  
CONTROLS ①  
DYN SRC ①  
HEIGHT  
HSPACE  
ISMAP  
LOOP ①  
LOW SRC ②  
NAME ②  
ONABORT ②  
ONERROR ②  
ONLOAD ②  
SRC  
START ①  
USEMAP  
VSPACE  
WIDTH

**End tag:**

None

**Contains:**

Nothing

**Used in:**

text

you should make sure your documents make sense and are useful, even if the images are completely removed.

**5.2.6.1 The src attribute**

The `src` attribute for the `<img>` tag is required (unless you use `dynsrc` with Internet Explorer-based movies; see 5.2.7.1). Its value is the image file's URL, either absolute or relative to the HTML document referencing the image. To unclutter their document storage, HTML authors typically collect image files into a separate folder they often name something like "pics" or "images." [URLs, 7.2]

For example, this HTML fragment places an image of a famous kumquat packing plant into the narrative text (see Figure 5-8):

Here we are, on day 17 of the tour, in front of the kumquat packing plant:

```
<p>  
  
<p>
```

What an exciting moment, to see the boxes of fruit moving

In the example, the paragraph (`<p>`) tags surrounding the `<img>` tag cause the browser to render the image by itself with some vertical space after the preceding text and before the trailing text. Text may also about the image, as we describe in 5.2.6.4.

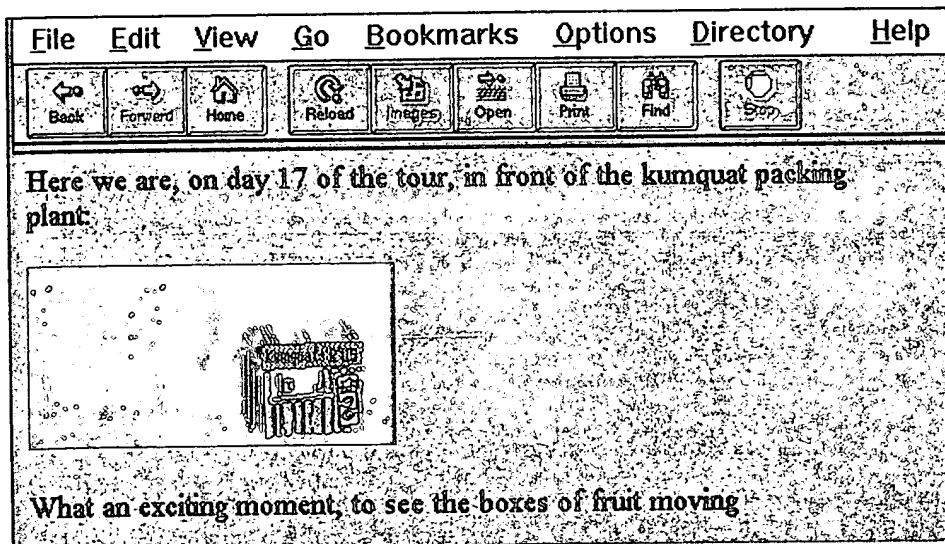


Figure 5-8. Image integrated with text

#### 5.2.6.2 The `lowsrc` attribute

To the benefit of users, particularly those with slow Internet connections, Netscape provides the `lowsrc` companion to the `src` attribute in the `<img>` tag as a way to speed up document rendering. The `lowsrc` attribute's value, like `src`, is the URL of an image file that the browser loads and displays when it first encounters the `<img>` tag. Then, when the document has been completely loaded and can be read by the user, Netscape goes back and retrieves the image specified by the `src` attribute.

Ostensibly, the `lowsrc` image is a low-resolution, abbreviated version of the final `src` image that loads faster by comparison to quickly give the reader an idea of its content until the final, higher-resolution image eventually replaces it onscreen. But the `lowsrc` attribute can also be used for some very special effects.

Netscape uses the `lowsrc` image's dimensions to reserve space in the document for both the `lowsrc` and `src` images, unless you explicitly allocate that space with the `height` and `width` attributes described later in this chapter. Hence, if the

dimensions of the image specified in the `src` attribute are different than those for the `lowsrc` image or your explicitly included height and width values, the `src` image will be reduced, enlarged, stretched, and/or compressed to fit in the allotted space. Moreover, the `lowsrc` and `src` images needn't be identical, so you might take advantage of the delayed rendering of the `src` image for simple animation.

The `lowsrc` attribute is for Netscape only. Other browsers ignore it and only load the image specified by the `src` attribute. Netscape won't load either image if the user chooses not to auto-load images. In that case, both images will load in order when the user clicks the images button or clicks the image icon placeholder. No browser loads the `lowsrc` image only; you must include a `src` image, otherwise nothing will appear except the missing image icon.

### 5.2.6.3 The alt attribute

The `alt` attribute specifies alternative text the browser may show if image display is not possible or disabled by the user. It's an option, but one we highly recommend you exercise for most images in your document. This way, if the image is not available, the user still has some indication of what it is that's missing.

The value for the `alt` attribute is a text string of up to 1024 characters, enclosed in quotation marks if you include spaces or other punctuation. The alternative text may contain entity references to special characters, but it may not contain any other sort of markup; in particular, no style tags are allowed.

Graphical browsers ignore the `alt` attribute if the image is available and downloading is enabled by the user. Otherwise, they insert the `alt` attribute's text as a label next to an image placeholder icon. Well-chosen `alt` labels thereby additionally support those users with a graphical browser who have disabled their automatic image download because of a slow connection to the Web.

Nongraphical, text-only browsers like Lynx put the `alt` text directly into the content flow just like any other text element. So, when used effectively, the `alt` tag sometimes can transparently substitute for missing images. (Your text-only browser users will appreciate not being constantly reminded of their second-class Web citizenship.) For example, consider using an asterisk as the `alt` attribute alternative to a special bullet icon:

```
<h3>Introduction</h3>
```

A graphical browser displays the bullet image, while in a nongraphical browser the `alt` asterisk takes the place of the missing bullet. Similarly, use `alt` text to replace special image bullets for list items. For example, the following code:

```
<ul>
  <li> Kumquat recipes 
  <li> Annual harvest dates
</ul>
```